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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David John GRAINGER et al

Serial No.: 10/581274

Filed: June 1, 2006

For: ANTI-INFLAMMATORY AGENTS

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

As a means of complying with the duty of disclosure under 37 CFR §1.56, and in accordance with 37 CFR §§1.97 and 1.98, Applicant(s), through the undersigned attorney, submits this Information Disclosure Statement. The patents, publications or other information submitted herewith are listed on the attached Form PTO-1449 and copies are attached excluding U.S. patents and publications.

Documents AC, AD, AF, AH, AI, AN-AP, AT and AU listed on the attached Form PTO-1449 were cited in the International Search Report. A copy of the ISR is attached.

Documents AA, AB, AE, AG, AJ-AM, AQ-AT, AV and AW listed on the attached Form PTO-1449 were cited in a corresponding British Search Report issued in a counterpart British application. A copy of the British Search Report is enclosed.

Documents AV and AX-AZ are discussed in the instant specification.

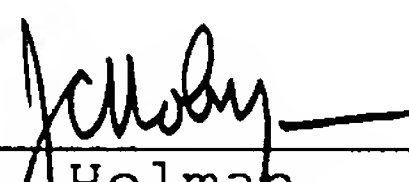
In accordance with 37 CFR §1.97(b)(3), this Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits of the above-identified application.

Should any additional fee be required by the filing of this statement, please charge such fee to Deposit Account No. 06-1358.

Respectfully submitted,

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Atty. Dkt. No.: P71304US0  
Date: January 3, 2007

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB2004/005030

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/55 A61P29/00 A61P25/28 A61P37/00 A61P19/10  
C07D223/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DAVIDSON BRADLEY S ET AL: "Isolation and synthesis of caprolactins A and B, new caprolactams from a marine bacterium" TETRAHEDRON, vol. 49, no. 30, 1993, pages 6569-6574, XP002320426 ISSN: 0040-4020 abstract page 6569, paragraph 1 page 6571, last paragraph ----- -/--	1-6,8, 19-22



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

9 March 2005

Date of mailing of the international search report

22. 06. 2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
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Langer, 0

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SEIFFERT D ET AL: "Presenilin-1 and -2 are molecular targets for gamma-secretase inhibitors." THE JOURNAL OF BIOLOGICAL CHEMISTRY. 3 NOV 2000, vol. 275, no. 44, 3 November 2000 (2000-11-03), pages 34086-34091, XP002320427 ISSN: 0021-9258 scheme 1 on page 34087 -----	5,6,8, 10,11, 21,22
X	WO 98/07694 A (NOVARTIS AG; GERSPACHER, MARC; VON SPRECHER, ANDREAS; MAH, ROBERT; ROG) 26 February 1998 (1998-02-26) page 1 - page 3, paragraph 3 page 3, paragraph 5 - page 5, paragraph 3 claims 1-14 -----	1
X	EP 1 008 346 A (SUNTORY LIMITED; DAIICHI SUNTORY PHARMA CO., LTD) 14 June 2000 (2000-06-14) paragraph [0022] paragraph [0024] - paragraph [0028] page 58 paragraph [0200] -----	1
X	US 5 852 007 A (CHATTERJEE ET AL) 22 December 1998 (1998-12-22) column 64; example 108 -----	1
X	US 5 821 231 A (ARRHENIUS ET AL) 13 October 1998 (1998-10-13) table 1 claims 20-25 -----	1
X	WO 01/68655 A (ARIAD PHARMACEUTICALS, INC; DEPREZ, PIERRE; LESUISSE, DOMINIQUE; BENAR) 20 September 2001 (2001-09-20) page 11, line 5 - line 19 claims 13,24 claims 18-20 -----	1
X	EP 0 351 856 A (TAKEDA CHEMICAL INDUSTRIES, LTD) 24 January 1990 (1990-01-24) Chart II on page 7 -----	5,8,10, 11,21,22
A	WO 98/17680 A (ZENECA LIMITED; LUKE, RICHARD, WILLIAM, ARTHUR; COTTON, RONALD) 30 April 1998 (1998-04-30) claims 1,8,11-13 -----	1-24,26
A	US 6 344 450 B1 (BISACCHI GREGORY S ET AL) 5 February 2002 (2002-02-05) Chart II on page 7 the whole document -----	1-24,26

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International Application No

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Information on patent family members

International Application No

PCT/GB2004/005030

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INVESTOR IN PEOPLE

Application No: GB 0327775.3  
Claims searched: 1-14

Examiner: Dr Annabel Ovens  
Date of search: 15 March 2004

## Patents Act 1977 : Search Report under Section 17

### Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	5 at least	Research Communications in Psychology, Psychiatry and Behavior Vol. 17, Nos. 3 & 4, 1992, Benjamin Weiss et al., "Effects of various amides on a rat brain puromycin-sensitive aminopeptidase and on induced convulsions in mice", pages 153-159, especially 3-Hexanamido-CAP, 3-Dodecanoamido-CAP and N-(n-Octyl)-ureido-N'-CAP in Table I at page 157 (see also CAPLUS Abstract Accession No. 1994:95413)
X	5 at least	JP 2003145933 A (RICOH CO.) 21.05.2203 (see also CAPLUS Abstract Accession No. 2003:386547)
X	5 at least	US 6506782 B (THORSETT ET AL.) see starting material of general procedure 5-A at column 139 and also CAPLUS Abstract Accession No. 2003:35360
X	5 at least	Journal of Bacteriology Vol. 178, No. 10, 1996, Amy L Schaefer et al., "Quorum sensing in <i>Vibrio fischeri</i> : probing autoinducer-LuxR interactions with autoinducer analogs", pages 2897-2901, especially compound W at page 2898 (see also CAPLUS Abstract Accession No. 1996:295790)
X	5 at least	US 5430022 (HEMMI ET AL.) see preparation 33-13 at column 46 and preparation 34-18 at columns 47-48 and also CAPLUS Abstract Accession No. 1994:410003
X	5 at least	JP 030206042 A (TAKEDA CHEMICAL INDUSTRIES) 09.09.1991 (see also CAPLUS Abstract Accession No. 1992:83664)
X	5 at least	US 3646153 (OXENRIDER ET AL.) see Example 10 and also CAPLUS Abstract Accession No. 1971:437790
X	6 at least	US 6297233 B (STEIN ET AL.) see starting material in Example 13 at column 31 and also CAPLUS Abstract Accession No. 2000:573666
X	5 at least	WO 97/16410 A (MERCK AND CO) see compound 5 at page 13 and Example 5 at pages 29-30 and also CAPLUS Abstract Accession No. 1997:390706





INVESTOR IN PEOPLE

**Application No:** GB 0327775.3  
**Claims searched:** 1-14

**Examiner:** Dr Annabel Ovens  
**Date of search:** 15 March 2004

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	5 at least	Tetrahedron Vol. 49, No. 30, 1993, Bradley S Davidson and Robert W Schumacher, "Isolation and synthesis of caprolactins A and B, new caprolactams from a marine bacterium", pages 6569-6574, especially compounds 1 and 2 at page 6569 (see also CAPLUS Abstract Accession No. 1993:666057)
X	5 at least	JP 100265761 A (JSR CO.) 06.10.1998 (see also CAPLUS Abstract Accession No. 1998:650488)

**Categories:**

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

**Field of Search:**

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC<sup>W</sup>:

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Worldwide search of patent documents classified in the following areas of the IPC<sup>7</sup>:

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The following online and other databases have been used in the preparation of this search report:

CAS-ONLINE
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WASHINGTON, D.C. 20004-2201

## LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.: P71304US0 GROUP ART UNIT: \_\_\_\_\_  
 SERIAL NO.: 10/581274 FILING DATE: June 1, 2006  
 APPLICANT(S): GRAINGER et al TODAY'S DATE: January 3, 2007

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**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE If Appropriate)
AA	3646153	02/29/72	Oxenrider et al	260	78	
AB	5430022	07/04/95	Hemmi et al	514	18	
AC	5821231	10/13/98	Arrhenius et al	514	18	
AD	5852007	12/22/98	Chatterjee	514	183	
AE	6297333	10/02/01	Stein et al	514	212	
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AG	6506782	01/14/03	Thorsett et al	514	364	

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AI	1008346	06/14/00	Europe		
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AK	10-265761	10/06/98	Japan		XX
AL	2003-145933	05/21/03	Japan		XX
AM	WO97/16410	05/09/97	WIPO		
AN	WO98/07694	02/26/98	WIPO		
AO	WO98/17680	04/30/98	WIPO		
AP	WO01/68655	09/20/01	WIPO		

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**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

AQ CAPLUS Abstract Accession No. 2003:386547 (corresponding to JP 03-145933)

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EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).